

## PATENT COOPERATION TREATY

REC'D 27 MAR 2006

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>PC-21017825</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/SE2004/001967</b>	International filing date ( <i>day/month/year</i> ) <b>21-12-2004</b>	Priority date ( <i>day/month/year</i> ) <b>22-12-2003</b>
International Patent Classification (IPC) or national classification and IPC <b>See Supplemental Box</b>		
Applicant <b>Hans Robertson et al</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a.  (*sent to the applicant and to the International Bureau*) a total of 4 sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b.  (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand <b>16-06-2005</b>	Date of completion of this report <b>13-03-2006</b>
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer <b>Patrik Rydman/MN</b> Telephone No. +46 8 782 25 00

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.  
PCT/SE2004/001967

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: Cover sheet

**International patent classification (IPC)**

**G06Q 10/00 (2006.01)**

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2004/001967

## Box No. I Basis of the report

1. With regard to the language, this report is based on:

- the international application in the language in which it was filed  
 a translation of the international application into English,  
 which is the language of a translation furnished for the purposes of:  
 international search (Rules 12.3(a) and 23.1(b))  
 publication of the international application (Rule 12.4(a))  
 international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- the international application as originally filed/furnished  
 the description:  
 pages 1 - 31 as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 pages \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 pages\* 1 - 4 received by this Authority on 16.06.2005  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 pages 1/9-9/9 as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2004/001967

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	<u>1-14</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	_____	YES
	Claims	<u>1-14</u>	NO
Industrial applicability (IA)	Claims	<u>1-14</u>	YES
	Claims	_____	NO

## 2. Citations and explanations (Rule 70.7)

The invention according to the application aims at providing a system and a method for associating time with specific tasks in order to provide a user with the possibility to overview the periods of time spent on said different tasks.

The object of the claimed invention is accomplished by arranging sensors on a person or objects, said sensors regularly detecting the location of the person or object, collecting information from said sensors, storing the information in a context log, processing the information and presenting the processed information in a context graph. More concisely expressed; the sensors attached to a person provides a system with data about where said person is at a specific time and the system presents the information in a graph.

Reference is made to the following documents cited in the international search report:

- D1: US, 5682142, A
- D2: US, 2002/145559, A1
- D3: US, 2003/013459, A1
- D4: US, 6054928, A
- D5: US, 2003/154293, A1
- D6: US, 2002111887, A1
- D7: H.P.W. Beadle, G.Q. Maguire, Jr., and M.T. Smith. Using location and environment awareness in mobile communications. In Proceedings of the EEE/IEEE International Conference on Information, Communications, and Signal Processing, pages 1781-1785, Singapore, September 1997. IEEE.
- D8: US, 6349327, B1
- D9: US, 2003/0208459, A1

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## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

Document D1 discloses a system for identification and surveillance of employees and tools comprising wireless communication, sensors, storage means and means for processing data.

Document D2 discloses a system for the surveillance of with regard to time and location.

Documents D3-D6 disclose different systems for tracking/logging persons within defined premises with regard to time and location.

Document D7 discloses (see paragraph 5.2) a system including a so called diary agent and badges arranged on persons. The diary agent records all places a badge wearer goes to during a day, how long the wearer spends at the location and who else is at the same location (indicating a meeting). A badge wearer may have an online diary file containing appointment and information about actual meetings that have taken place. In paragraph 5.1 document D7 further describes that a doctor in a hospital may use the badges arranged on patient in order to monitor the location of the patients.

Documents D8 and D9 disclose systems making use of contexts for the cooperation between users without using tags/badges or sensors.

A system and a method according to independent claims 1 and 8 is known from document D7. Thus, the invention defined in said claims is not new and consequently lacks novelty and inventive step.

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**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

The subject matter of claims 2 and 9 differs from what is disclosed by document D7, which is considered to best represent the prior art, in that said claims explicitly states that the location information is presented graphically and that said graphic presentation comprises present time as well as a period of past time. It is considered obvious that the diary of document D7 is graphically presenting the information and that said presentation includes some kind of time axis and, thus, shows present and past time. Said features have to be said are implicitly expressed by the term "diary". Therefore, the invention according to dependent claims 2 and 9 cannot be considered inventive.

The subject matter of dependent claims 3-7 and 10-14 only differs from what is described in document D7 by administrative features and cannot be considered inventive.

The invention according to claims 1 and 8 is not novel and does not involve an inventive step. The invention according to claims 2-7 and 9-14 is novel, but does not involve an inventive step. The invention according to claims 1-14 is industrially applicable.

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AMENDED CLAIMS

1. A system for creating and conveying an image of a first person's context to a second person, comprising a plurality of sensors arranged on said first person and the person's surroundings, said sensors detecting location of said first person and any activity performed on an object in said location, and
  - 5 communication means arranged to collect and to store data from said sensors in a context log relating to said first person, characterized in
  - 10 processing means arranged to select and process data from said context log and to generate a first context graph displaying location and/or activity for said first person as a function of time, wherein said context graph comprises present time as well as a period of past time, and
  - 15 presentation means for making said first context graph visually accessible to said second person.
2. The system according to claim 1, further comprising
  - 20 a plurality of sensors arranged on said second person and the person's surroundings, said sensors detecting location of said second person and any activity performed on an object in said location,
  - 25 communication means arranged to collect and to store data from said sensors in a context log relating to said second person, characterized in
  - 30 processing means arranged to select and process data from said context log and to generate a second context graph displaying location and/or activity for said second person as a function of time, wherein said context graph comprises present time as well as a period of past time, and

presentation means for making said second context

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graph visually accessible to said first person,  
wherein said first context graph is displayed by  
said presentation means adjacent to said second context  
graph.

5       3. System according to claim 1 or 2, wherein said  
processing means are arranged to receive information  
about restrictions of accessibility of the first context  
graph with respect to the second person, and to provide  
corresponding restrictions in accessibility of the second  
10      context graph with respect to the first person.

15      4. System according to claim 3, wherein  
accessibility of the second context graph with respect to  
the first person is further restricted to such context  
aspects present in said first context graph.

15      5. System according to claim 3 or 4, wherein said  
restrictions apply for a corresponding time period.

15      6. System according to any one of claims 3-5,  
wherein said restrictions apply for different but  
reciprocal time periods.

20      7. System according to any one of the preceding  
claims, wherein said processing means are arranged to  
receive information about documentation associated with  
data in said context graph, and to catalogue said  
documentation based on its association with said context  
graph.  
25

25      8. A method for creating and providing an image of  
a context in which a first person is to a second person,  
comprising

30      detecting, with a plurality of sensors arranged on  
said first person and the person's surroundings, a  
location of said first person and any activity performed  
on an object in said location, and

30      collecting and storing data from said sensors in a  
context log relating to said first person,

35      characterized in

35      selecting and processing data from said context log  
and generating a first context graph displaying location

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and/or activity for said first person as a function of time, wherein said context graph comprises present time as well as a period of past time, and

making said first context graph visually accessible  
5 to said second person.

9. Method according to claim 8, further comprising  
detecting, with a plurality of sensors arranged on  
said second person and the person's surroundings, a  
location of said second person and any activity performed  
10 on an object in said location,

collecting and storing data from said sensors in a  
context log relating to said second person,

selecting and processing data from said context log  
and generating a second context graph displaying location  
15 and/or activity for said second person as a function of  
time, wherein said context graph comprises present time  
as well as a period of past time, and

making said second context graph visually accessible  
to said first person, wherein said first context graph is  
20 displayed by said presentation means adjacent to said  
second context graph.

10. Method according to claim 8 or 9, further  
comprising receiving information about restrictions of  
accessibility of the first context graph with respect to  
25 the second person, and to provide corresponding  
restrictions in accessibility of the second context graph  
with respect to the first person.

11. Method according to claim 10, further  
comprising restricting the accessibility of the second  
30 context graph with respect to the first person to such  
context aspects present in said first context graph.

12. Method according to claim 10 or 11, wherein  
said restrictions apply for a corresponding time period.

13. Method according to any one of claims 10-12,  
35 wherein said restrictions apply for different but  
reciprocal time periods.

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14. Method according to any one of claims 8 - 13,  
further comprising receiving information about  
documentation associated with data in said context graph,  
and cataloguing said documentation based on its  
5 association with said context graph.